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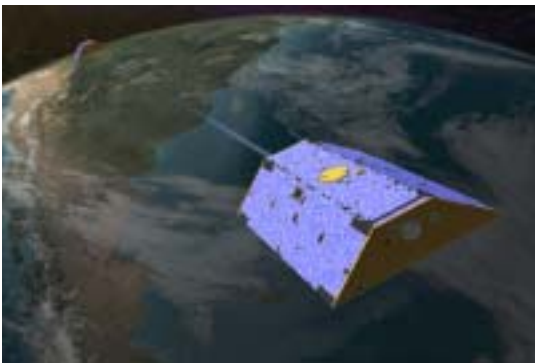
March 18, 2002

Scientists Say 'Grace' as Water-Sensing Satellites Lift Off

NASA and the German Center for Air and Space Flight today successfully launched the Gravity Recovery and Climate Experiment, or "Grace," mission into Earth orbit on March 17 at 1:21:27 a.m. Pacific time from Russia's Plesetsk Cosmodrome.

The mission, comprised of identical twin satellites, will precisely measure Earth's shifting water masses and map their effects on Earth's gravity field.

The five-year Grace mission-the first launch of NASA's Earth System Science Pathfinder program-will be a scientific boon to researchers who study Earth with space-based instruments.



Artist's concept of Grace

The monthly gravity maps generated by Grace will be up to 1,000 times more accurate than those currently in use, substantially improving the accuracy of many techniques used by oceanographers, hydrologists, glaciologists, geologists and other scientists to study phenomena that influence climate. These phenomena range from shallow and deep ocean currents, water movement on and beneath Earth's surface, and the movement and changing mass of ice sheets, to sea-level heights, sea-level rise and changes in the structure of the solid Earth.

Under partly cloudy skies, the Grace twins lifted off on a Russian Rocket launch vehicle. Riding nearly 160,000 kilograms (approximately 350,000 pounds) of thrust, the rocket headed northward over the Arctic Ocean and Alaska, then south across the Pacific Ocean and Antarctica before heading north again over Africa and Europe.

At 85 minutes, 38 seconds into the mission-or 2:47 a.m. Pacific time-the satellites separated from the launch vehicle's third stage above Africa into a polar orbit 500 kilometers (311 miles) above Earth.

Ground controllers successfully acquired the spacecraft's signal from the German Space Operations Center's ground tracking station in Weilheim, Germany at 2:49 a.m. Pacific time. Initial telemetry reports received by the Grace team show both satellites to be in excellent health.

Following separation, the leading Grace satellite began pulling away from the trailing satellite at a relative speed of about 0.5 meters (1.6 feet) per second. Over the course of the next four days, the satellites will be spaced 220 kilometers (137 miles) apart- a little more than the distance between Los Angeles and San Diego.

As they race around the globe 16 times a day, the satellites will sense minute variations in Earth's surface mass below and corresponding variations in Earth's gravitational pull. Regions of slightly stronger gravity will affect the lead satellite first, pulling it slightly away from the trailing satellite. By measuring the constantly changing distance between the two satellites using an extremely sensitive microwave ranging system and combining that data with precise positioning measurements from Global Positioning System instruments, scientists will be able to construct a precise Earth gravity map.

During the next two and a half weeks, basic satellite operations will be established. During a subsequent three-week commissioning phase, Grace's science instruments and supporting systems will be powered up, evaluated and calibrated.

The performance of the Grace system for measuring Earth gravity will then be validated over the following six months. The mission then enters its observational phase, during which routine operational data products will be made available to scientists.

Additional information about the Grace program is available at:
<http://www.csr.utexas.edu/grace>.

Grace is a joint partnership between NASA and the German Center for Air and Space Flight. NASA's Jet Propulsion Laboratory, Pasadena, Calif., manages the U.S. portion of the project for NASA's Office of Earth Science, Washington.

Wallops Shorts.....

NASA Administrator Visits WFF

NASA's Administrator Sean O'Keefe will be visiting Wallops on Tuesday, March 19. He and other Headquarter guests are excited about the visit. We plan to very quickly show the Administrator some of our facilities.

O'Keefe will actually be here to address an MEP class, and won't have the opportunity for an All Hands session this time. We are, however, looking forward to his next visit when we can show additional projects and programs.

Sounding Rocket Launches

Three NASA Improved Orion sounding rockets were successfully launched in less than three hours from Poker Flat Research Range, Alaska, on March 15. The payload for each flight was a Geospace Sciences experiment. Dr. Kristina Lynch, University of New Hampshire, was the principal investigator. The payloads were not recovered.

On the road

Rich Rogers, NASA Aircraft Office, visited Salisbury Christian School on March 12 and spoke to second grade students on astronomy.

Randy Carrier, Orbital Science Corporation, was guest speaker for an aerospace meeting of the Harrington (Del.) 4-H Club on March 13.

Deputy Administrator Nomination Withdrawn

The following is a statement by NASA Administrator Sean O'Keefe after being advised of a White House decision to withdraw the nomination of Major General Charles F. Bolden, U.S. Marine Corps, as the agency's next Deputy Administrator.

"We are disappointed that General Bolden isn't able to join NASA at this time. His impeccable credentials as an astronaut and military aviator made him an excellent selection. However, at this critical juncture in our nation's history, we must understand how vital it is for America to focus all its military resources on the immediate national security imperatives.

"Senior military leaders of General Bolden's caliber are a rare and precious resource. The Marines are very fortunate to be able to keep him among their ranks. Given the ongoing war on terrorism and the imperative expressed by the Secretary of Defense that all uniformed military personnel serve to advance the President's objectives to win the war, we fully support the President's decision."



March is National Women's History Month

The Women of Wallops will present storyteller, Pam McGrath, on Thursday, March 21, from 1 until 2:30 p.m. at the Wallops Gym, Building D-10.

Career Development Forum

The First Annual Career Development Forum was held at NASA Goddard Space Flight Center, Greenbelt, on March 12 and at Headquarters on March 13.

The purpose of this all day forum is to provide an opportunity for Goddard and Headquarters to showcase the various career development tools and resources that aid employees in managing and realizing their own individual career goals.

Victor Eyo, chair of the Wallops Committee, and Sandra Savage, committee member, attended both forums.

The third forum will be held at Wallops on March 28 in Building E-104. The forum format is informal. It begins at 8:45 a.m. with videotape opening remarks from NASA Administrator Sean O'Keefe and Center Director Al Diaz. The opening remarks will be followed by a dynamic keynote speaker.

Activities for the rest of the day include three workshops and two web demonstration sessions, a brown-bag lunch seminar and two story telling sessions. During the story telling sessions, employees will speak about their successes and failures as they have risen up the career ladder. The Wallops story telling panel is as follows:

Panel I (10:15 a.m. - 11:45 a.m.): John Hickman, Craig Purdy, Sandy Kleckner, Betty Flowers, Orlando Figueroa

Panel II (1 p.m. - 2:30 p.m.): Bruce Underwood, John Gerlach, Tony Baldwin, Debbie Parks, Lisa Johnson, Caroline Massey, Jay Pittman

There also will be an information booth where attendees can obtain quick answers to career related questions. A Human Resource representative will staff an information booth to answer Wallops human resource related questions.

Wallops employees are strongly encouraged to take advantage of this forum.

Information on speakers, room assignments and forum activities can be found at <http://ohr.gsfc.nasa.gov/Hot/CareerForum.htm>.

Former All-Pro Football Player to Speak

"The Secrets of Teams that Win"
Brian Holloway, futurist and five-time All-Pro NFL football player will be the guest speaker for a Center Director's Colloquium scheduled for 10 a.m. on March 27 in the Wallops Gym, Building D-10.

Those who attend the morning session are encouraged to continue the conversation on what it takes to create and sustain a championship-quality team during an afternoon roundtable discussion from 2 to 3:30 p.m. in Building E-107, Room 117.

Holloway, a Stanford All-American, five-time NFL All-Pro, and Team Captain of the 1985 New England Patriots Super Bowl Team, will answer teamwork questions.

Currently, Holloway offers his expertise in building world-class teams to many Fortune 500 companies, such as General Electric, Wal-Mart, and Conoco. His circle of acquaintances is varied and broad, including Former President George H. W. Bush, Hall of Fame Coach Bill Walsh, the Honorable Mario Cuomo, and the Honorable Joseph P. Kennedy, II.

Holloway has been featured on the USA Network, The Today Show, NBC Sports, ABC Sports, ESPN, *The New York Times*, and *The Wall Street Journal*. He brings 15 years of intense, competitive professional sports expertise and 10 years of thoughtful reflection to his work.

Red Cross Blood Drive

The American Red Cross (ARC) will be at Wallops on March 26 from 9:30 a.m. to 2:30 p.m., in the Rocket Club, Building F-3, to accept blood donations. The need for blood donations has not diminished.

Whether you have given in the past or not, please consider rolling up your sleeve to give the gift of life. The ARC representative is providing a special thank-you gift to each donor. To schedule on appointment, call the Health Unit on x1766.



From FEDweek March 13 Issue

Thrift Savings C, S Funds Slip

The two Thrift Savings Plan stock funds based on U.S. stock markets, the large capitalization stock common stock (C) fund and the small and mid-cap stock (S) fund both dropped in February for the second straight month, with the C fund falling 1.92 percent and the S fund losing 2.64 percent.

The international stock (I) fund gained 0.66 percent, however, while the bond (F) fund gained 0.98 percent and the government securities (G) fund rose 0.40 percent. Returns for the last 12 months: C, -9.58 percent; S, -6.32; I, -19.55; F, +7.79, G, +5.36.

The 12-month returns for the S and I funds, which began last May, are based on the performance of the funds in which they are invested.

Meanwhile, money in the G fund is being invested at a 5.125 percent annual rate in March.

Easter Give-away

The Wallops Exchange and Morale Association (WEMA) Exchange Store is going to give away an Easter Basket filled with NASA logo items and candy!



The drawing will be held at 2 p.m. on March 28. You must be a Wallops Flight Facility employee and make a purchase to register.

Lunch N Learn

The Employee Assistance Program (EAP) will hold a Lunch N Learn on March 21 in the Williamsburg Room, Building E-2, from 11:30 a.m. to 12:30 p.m. The topic will be "Anxiety Relief!"

Although stress is inevitable, it needn't be debilitating. During this Lunch 'n' Learn, you will gain some basic skills in managing your own stress and anxiety level.

You'll learn how to recognize what your body is trying to tell you. You'll also be given simple exercises to reduce the unpleasant symptoms of stress and anxiety. Learn why it is never a good idea to ADD stress when it feels "good" to do so!

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Editor
Photography
Printing

Betty Flowers
Critical Section
Printing Management Of file